

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0423]

APRIL 2023

Sub. Code: 1412

**B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY
SECOND YEAR (Regulations 2010-2011, 2014-2015 & 2018-2019 onwards)
PAPER II – PRINCIPLES OF PERFUSION TECHNOLOGY – PART-1
Q.P. Code: 801412**

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Explain the Management of the Coagulation Parameters during CPB.
2. Draw the CPB circuit of an adult undergoing Mitral Valve Replacement.
3. Describe the Modes of Heat Transfer and uses of Heat Exchanger devices in CPB.

II. Write notes on:

(8 x 5 = 40)

1. Importance and Procedure of Occlusion checking.
2. Cardioplegia.
3. Complications of Venous Cannulation.
4. Protamine Reactions and its Management.
5. Bubble Oxygenator.
6. Bivalirudin.
7. Activated clotting time.
8. Sodium Bicarbonate.

III. Short answers on:

(10 x 3 = 30)

1. Left Ventricular assist device - Indications.
2. Tranexamic acid.
3. John. H. Gibbon.
4. Methods of Various Cannulation.
5. Insertion techniques of an IABP.
6. Gas line filters.
7. Perfusion emergencies.
8. Different types of Tubing materials.
9. Priming solutions.
10. Types of Hypothermia.
